

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 13 (Canceled)

14. (currently amended): A silicon carbide having a ~~region~~ pn junction which has an impurity concentration gradient between $1 \times 10^{22}/\text{cm}^4$ and $4 \times 10^{24}/\text{cm}^4$ in the thickness direction, said silicon carbide being manufactured by the method comprising:

depositing silicon from a vapor phase or a liquid phase onto a substrate and forming a silicon layer on the substrate;

doping the silicon layer with an impurity composed of at least one element selected from a group consisting of N, B, Al, Ga, In, P, As, Sb, Se, Zn, O, Au, V, Er, Ge, and Fe, to selectively form a n-type or a p-type area of a doped silicon layer; and

carbonizing the doped silicon layer into a silicon carbide layer of the silicon carbide doped with the impurity to form the pn junction.

15 (currently amended): A semiconductor device comprising a silicon carbide layer having a pn junction, said silicon carbide being manufactured by the method comprising:

depositing silicon from a vapor phase or a liquid phase onto a substrate and forming a silicon layer on the substrate;

doping the silicon layer with an impurity composed of at least one element selected from a group consisting of N, B, Al, Ga, In, P, As, Sb, Se, Zn, O, Au, V, Er, Ge, and Fe, to selectively form a n-type or a p-type area of a doped silicon layer; and

carbonizing the doped silicon layer into a silicon carbide layer of the silicon carbide doped with the impurity to form the pn junction.

Amendment under 37 C.F.R. § 1.111
Application No. 09/924,872

16. (Original): A semiconductor device structured by the silicon carbide claimed in claim
14.

17 - 19 (canceled).